

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1, 4-16, and 18-39 are pending in this application. Claims 1, 16, 19, 26, and 37 are independent. Claims 1, 5, 13, 16, and 19 are hereby amended. Claims 26-39 are new. Claims 2, 3, and 17 have been canceled without prejudice or disclaimer of subject matter. It is submitted that these claims, as originally presented, were in full compliance with the requirements 35 U.S.C. §112. No new matter has been introduced by this amendment. Support for this amendment is provided throughout the Specification. Changes to claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which the Applicants are entitled.

Claim 13, which was objected to due to an informality, has been amended, obviating the objection.

Applicants note that claims 9 and 15 were objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form. Claims 26 and 37 include all the features of claim 9. Therefore claims 26 and 37 are patentable.

II. REJECTIONS UNDER 35 U.S.C. §102(e)

Claims 1-4, 11, 13, 16, 17, 19, and 22-25 were rejected under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent No. 6,175,639 to Satoh, et al.

Claim 1, now recites, *inter alia*:

“...wherein said transform domain provides a plurality of sub-bands and said means for combining is operable to combine data to be embedded with a first sub-band of said first field, and to combine said data with a second sub-band of said second field of said image data in said transform or said spatial domain, and

wherein said first sub-band and said second sub-band comprise mutually exclusive spatial frequency components...” (emphasis added)

As understood by Applicants, U.S. Patent No. 6,175,639 to Satoh, et al.

(hereinafter, merely “Satoh”) relates to inserting water mark data into digital data signals having a series of field data. Applicants submit that although Satoh refers to introducing watermark data into the odd and even fields of an interlaced scan image, there is no disclosure in Satoh of introducing the watermark data into the different sub-bands of the frequency components of the image signal.

The Office Action states that it is inherent in the DCT transformation that the coefficients which are spatial frequency coefficients are mutually exclusive from each other. Applicants respectfully submit that this not does correspond to the above-recited features of amended claim 1. This is because the first field will have spatial frequency components which will overlap conterminously with the spatial frequencies of the second field. Claim 1 now clearly states that the first sub-band of the first field and the second sub-band of the second field are mutually exclusive.

Applicants submit, as indicated in the application as originally filed on page 4, lines 3-16, introducing data into different sub-bands into the first and second fields of an image provides an advantage in making it more likely that the data can be recovered. This is because when an image frame is processed in some way, then the processing may effect on sub-band of frequencies more than another. By putting data into different sub-band frequencies of the first and second fields of the image frame, it is more likely that one of the parts of the data will be affected by the processing less than the other part of the data. Accordingly, the likelihood of correctly recovering the data is improved.

Applicants submit that Column 13, lines 45-53, of Satoh describes the embedding of watermark signal into the frequency components of the odd and even fields. However, there is no limitation disclosed in this passage of introducing data into mutually exclusive sub-bands of the respective odd and even fields of an image frame.

Applicants submit that nothing has been found in Sato that would teach of suggest the above-identified feature of claim 1. Specifically, Applicants submit that Satoh fails to disclose or suggest that the means for combining is operable to combine data to be embedded with a first sub-band of said first field, and to combine said data with a second sub-band of said second field of said image data in said transform or said spatial domain, wherein said first sub-band and said second sub-band comprise mutually exclusive spatial frequency components, as recited in claim 1.

III. REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 6-8 and 10 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,175,639 to Satoh, et al. in view of U.S. Patent No. 6,535,616 to Hayashi, et al.

Claims 5, 12, and 13 rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,175,639 to Satoh, et al. in view of U.S. Patent No. 6,226,387 to Tewfik, et al.

Claims 14, 18, and 20 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,175,639 to Satoh, et al. in view of U.S. Patent No. 5,991,426 to Cox.

Applicants submit that Hayashi, Tewfik, nor Cox provide the disclosure missing in Satoh.

IV. DEPENDENT CLAIMS

The other claims in this application are each dependent from one of the independent claims discussed above and are therefore believed patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

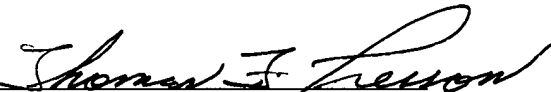
In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited references, it is respectfully requested that the Examiner

specifically indicate the portion, or portions, of the reference, or references, providing the basis for a contrary view.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

Respectfully submitted,
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